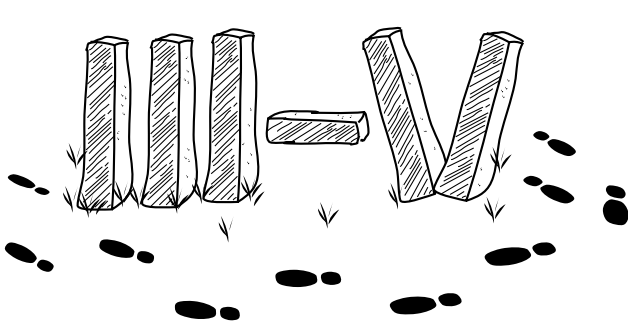
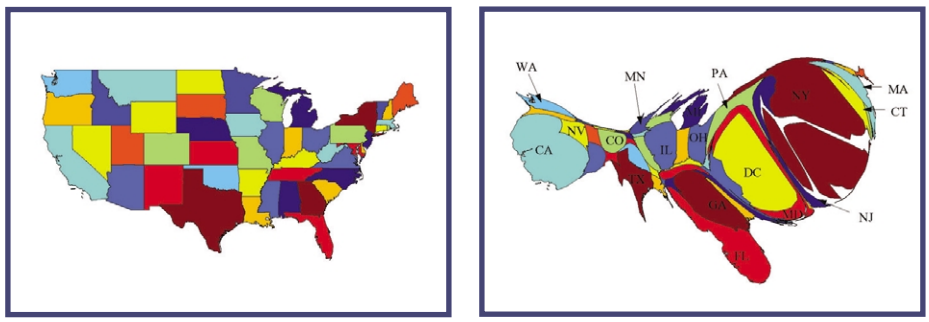


AROUND III-Vs

Wafer mapping for defect detection is an industry standard. Among classic suppliers is Accent Optical Technologies (just filed for IPO), with its wide portfolio, including critical dimension/scatterometry, defect detection, pulsed current analysis, DLTS, electrochemical CV profiling, FT-IR, Hall mobility system, overlay, photoluminescence maping, X-ray diffraction and contamination mapping.



Distribution of news stories by state in the USA. Left is the conventional map of the states. Right, the 'butterfly' 'Mindshare map' which sizes the states proportionally to the frequency of their appearance in the news stories. States have the same colours in both maps.

Mapping of a different kind is diffusion mapping, where a physics formula is used as a marketing tool and to put a fascinating slant on human data. Behind the cartography is Mark Newman, assistant professor of Physics at the College of Literature, Science and Art at the University of Michigan, who with research assistant, Michael Gastner, developed a new technique for drawing maps with a new take on human data.

The new technique produces cartograms, which focus on the size of areas on the map, showing them in proportion to a variable, such as population. Not a new idea: such cartograms have tended to yield badly distorted or unreadable maps.

Using a physics formula for solving gas problems, Newman and Gastner 'diffuse' populations in a mapped area from densely populated to less populated, and then redraw the map with boundaries.

In their paper "*Diffusion-based method for producing density equalising maps*" one fascinating example produces a 'qualitive example of a mental map', that takes 72,000 newswire stories from 1994-1998 to create an amazing 'mind-share map', representing the fraction of stories concerning that state, over the time interval in question. And it shows Washington (not normally visible on this map scale) emerging as the union's 2nd largest state!

Anyone who really likes maps and anything visually appealling should try a site discovered by Tara Calishan [http://www.researchbuzz.com], who located this visual delight at http://www.davidrumsey.com /collections, from which the Japanese landscape map shows another slant on cartography.

Mapping Russian activity

From maps moving around the globe, the movement of some of the Fabergé eggs, from the Forbes collection in the US back to their calf-country, was highlighted in an exhibition at the Kremlin's Patriarch's Palace, running from May to July.

Browsing through *The Moscow & St Petersburg Times* [http://www.themoscow-times.com/stories/2004/05/19/002.html], which discussed the eggs in some detail, finds RF and microwave supplier M/A-Com looking for an experienced country manager to support its efforts on the continued growth of its Eastern European market share.

Based in St Petersburg and/or Moscow, the role involves planning, organising and developing the sales effort to ensure that the country achieves objectives for sales performance, profit margin, customer and market penetration, and growth.

Candidates should have BSEE and 10 years of technical selling experience (RF & Microwave Components & subsystems), especially into the broadcast and radar markets, together with a minimum of three years sales management experience.

Strong written and oral English language skills are a requirement. Résumés in English to: emeryt@tycoelectronics.com

http://www.themoscowtimes.com/stories/2004/05/19/002.html

The Japanese Historical Maps Collection of the East Asian Library were selected by Yuki Ishimatsu, Head of Japanese Collections at the East Asian Library at U.C. Berkeley. Most noteworthy are a range of Japanese city maps dating back 300 years.